

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

1. (Currently Amended) A coordinating cancellation server of a digital delivery system, configured for executing the steps of:

communicatively coupling a first of a plurality of cancellation servers connected through the coordinating cancellation server to at least one database comprising a plurality of unique identifiers for cryptographic puzzles;

receiving at a first cancellation server an identifier associated with a cryptographic puzzle, the puzzle being attached to a digital object received from a sender, the digital object being an electronic mail message intended for delivery from a sender to a recipient distinct from the sender;

validating the received identifier by verifying that the identifier does not exist in the at least one database associated with the first cancellation server connected to said coordinating cancellation server;

~~communicatively coupling a second cancellation server through the coordinating cancellation server to an additional database of said unique identifiers;~~

querying the coordinating cancellation server from the first cancellation server for the address of a second cancellation server having a database of unique identifiers;

receiving the address of a second cancellation server from the coordinating cancellation server;

validating the received identifier further at the first cancellation server by directly querying the second cancellation server and verifying that the identifier does not exist in the database associated with the second cancellation server; and

upon validating, canceling the cryptographic puzzle by storing in the at least one database an entry comprising the identifier or information derived from the identifier, and transmitting to the recipient an ACCEPT response if the identifier is validated.

2. (Canceled)

3. (Previously Presented) The coordinating cancellation server of claim 1 further executing the step of transmitting to the recipient, a REJECT response if the identifier is not validated.
4. (Previously Presented) The coordinating cancellation server of claim 1 wherein the server is further configured for executing the step of receiving a timestamp associated with the cryptographic puzzle, and storing in the at least one database, if the identifier is validated, the timestamp or information derived from the timestamp.
5. (Previously Presented) The coordinating cancellation server of claim 4 further executing the step of causing an entry to be removed from the database if the timestamp falls outside a threshold range.
6. (Previously Presented) The coordinating cancellation server of claim 1 wherein verifying that the identifier does not exist in the at least one database comprises computing a hash of the identifier.
7. (Previously Presented) The coordinating cancellation server of claim 6 wherein the identifier is hashed according to a range of values for a peer-to-peer distributed lookup service.
- 8-9. (Canceled)
10. (Currently Amended) The coordinating cancellation server of claim 1 wherein the first cancellation server and the second cancellation server communicate through a peer-to-peer network or through a network connection to a coordinating server.

11. (Canceled)
12. (Currently Amended) A puzzle checker for use in a digital delivery system, the puzzle checker communicatively coupled with a coordinating cancellation server, and configured for executing the steps of:
 - querying the coordinating cancellation server from the first cancellation server for the address of a second cancellation server having a database of unique identifiers;
 - receiving the address of an identified second cancellation server from the coordinating cancellation server;
 - communicatively coupling a first cancellation server through the coordinating cancellation server to at least one database within the second cancellation server comprising a plurality of unique identifiers for cryptographic puzzles;
 - transmitting to the second cancellation server, an identifier associated with a cryptographic puzzle, the puzzle being attached to a digital object, the digital object being an electronic mail message intended for delivery from a sender to a recipient distinct from the sender, the puzzle checker being associated with the recipient;
 - receiving a REJECT response directly from ~~any one of~~ the second cancellation server[[s]] communicatively coupled to the coordinating cancellation server as a result of the identifier being already present in a database of ~~at least one~~ the second cancellation server; and
 - processing the digital object in response to receiving the REJECT response by altering an attribute associated with the digital object such that the digital object is not forwarded to the receiver as if an ACCEPT response were received from the cancellation server.
13. (Original) The puzzle checker of claim 12 wherein processing the digital object comprises removing the digital object.

14. (Original) The puzzle checker of claim 12 wherein processing the digital object comprises marking the digital object for subsequent filtering.
15. (Original) The puzzle checker of claim 12 wherein processing the digital object comprises modifying the priority of the digital object.
16. (Previously Presented) The puzzle checker of claim 12 further executing the steps of:
verifying whether a solution solves the puzzle, and
processing the digital object if the solution does not solve the puzzle.
17. (Previously Presented) The puzzle checker of claim 12 further executing the steps of
confirming whether a timestamp associated with the cryptographic puzzle is within a threshold range; and generating the REJECT response if the timestamp is outside the threshold range.
18. (Previously Presented) The puzzle checker of claim 12 further executing the step of:
computing a hash of the identifier;
wherein the transmitting step further comprises transmitting the hash of the identifier to the cancellation server.
19. (Previously Presented) The puzzle checker of claim 12 wherein the puzzle checker is located in a recipient computer.
20. (Previously Presented) The puzzle checker of claim 12 wherein the puzzle checker is located an intermediary server.
- 21-27 (Canceled)

28. (Currently Amended) A method for using a cryptographic puzzle attached to a digital object for delivery from a sender to a recipient distinct from the sender through a digital delivery system, the digital object being an electronic mail message, the method comprising the steps of:
- communicatively connecting a plurality of cancellation servers through a coordinating cancellation server;
 - communicatively connecting to a database in a first cancellation server and a separate database in a second cancellation server, each database comprising a plurality of unique identifiers for cryptographic puzzles;
 - querying the coordinating cancellation server from the first cancellation server for the address of a second cancellation server having a database of unique identifiers;
 - receiving an identifier associated with the cryptographic puzzle, the puzzle being attached to the digital object as sent by the sender;
 - validating the identifier by verifying that the identifier does not already exist in the database in the first cancellation server or the database in the second cancellation server through a direct query from the first cancellation server to the second cancellation server; and
 - upon validating, canceling the cryptographic puzzle by storing in each database in each cancellation server in communication with the coordinating cancellation server the identifier or information derived from the identifier, and transmitting to the recipient an ACCEPT response.
29. (Previously Presented) The method of claim 28 further comprising the step of receiving a timestamp associated with the cryptographic puzzle, and upon validating, storing in the database, the timestamp or information derived from the timestamp.
30. (Original) The method of claim 29 further comprising the step of causing an entry to be removed from the database if its timestamp falls outside a threshold range.

31. (Previously Presented) The method of claim 28 further comprising the step of transferring data from the database to a second database.
32. (Canceled)
33. (Previously Presented) The method of claim 28 wherein the two databases are part of a peer-to-peer network or are communicatively connected through a coordinating server.
34. (Previously Presented) The method of claim 28 wherein the identifier is hashed to a value within a predefined range of values.
35. (Canceled)
36. (Canceled)